

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,305	06/27/2003	Liang C. Dong	ARC 3251 R1	8986
	7590 01/18/2007 CORPORATED	EXAMINER		
P.O. BOX 1017			GOLLAMUDI, SHARMILA S	
CYPRESS, TX 77410-1017		9	ART UNIT	PAPER NUMBER
			1616	
SHORTENED STATUTOR	Y PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MONTHS		01/18/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)	
	10/608,305	DONG ET AL.	
Office Action Summary	Examiner	Art Unit	
	Sharmila S. Gollamudi	1616	
The MAILING DATE of this communication ap	ppears on the cover sheet with the	correspondence address	
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING I Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the maili earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION .136(a). In no event, however, may a reply be divil apply and will expire SIX (6) MONTHS from the cause the application to become ABANDOI	ON. timely filed om the mailing date of this communication. NED (35 U.S.C. § 133).	
Status		·	
Responsive to communication(s) filed on 16 f This action is FINAL . 2b) ☑ This action is FINAL . Since this application is in condition for allowed closed in accordance with the practice under	is action is non-final. ance except for formal matters, p		
Disposition of Claims			
4) ⊠ Claim(s) 1-36 is/are pending in the application 4a) Of the above claim(s) 2,3,14-16 and 25-36 5) ☐ Claim(s) is/are allowed. 6) ☒ Claim(s) 1,4-13 and 17-23 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/	6 is/are withdrawn from consider	ation.	
Application Papers			
9) The specification is objected to by the Examin 10) The drawing(s) filed on is/are: a) ac Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the E	cepted or b) objected to by the drawing(s) be held in abeyance. So ction is required if the drawing(s) is continuous.	ee 37 CFR 1.85(a). Objected to. See 37 CFR 1.121(d).	
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreig a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureat * See the attached detailed Office action for a list	nts have been received. Its have been received in Applications or the second in the s	ation No ved in this National Stage	
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summa Paper No(s)/Mail 5) Notice of Informa	Date	
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	6) Other:	atom repplication	

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group, claims 1-24; the species directed to a multilayer reservoir; HPMC; and polymethacrylate latex respectively in the reply filed on 8/4/06 and 11/16/06 is acknowledged. Accordingly claims 25-36 are withdrawn as being directed to a non-elected invention and claims 2-3, 14-16, are withdrawn as being directed to a non-elected species. Claims 1, 4-13, 17-23 are directed to the elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

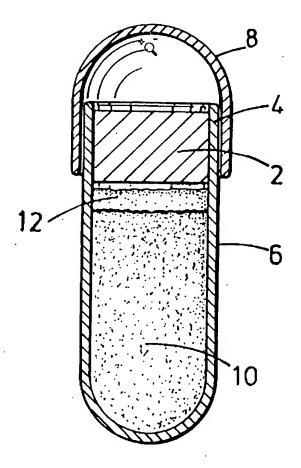
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by 5,897,874 (Steven et al).

Stevens et al disclose delivery device for delivering an active substance to a patient at a predetermined time.

Application/Control Number: 10/608,305

Art Unit: 1616



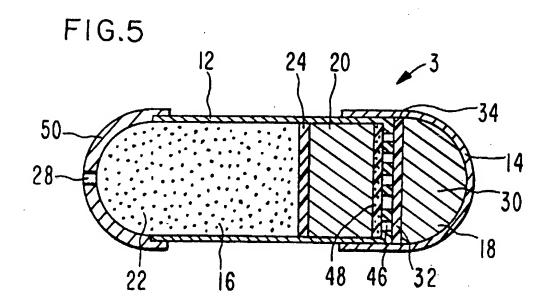
The body of the capsule, 6, is preferably a hard gelatin capsule that is coated with a water-impermeable coating including polyethylene, polypropylene, poly(methylmethacrylate), polyvinyl chloride, polystyrene, polyurethanes, polytetrafluoroethylene, nylons, polyformaldehydes, polyesters, cellulose acetate and nitro cellulose. See column 3, lines 5-25 and column 6, lines 18-21. Stevens discloses that the device can expel pharmaceutical as solid substances and liquids. The solid substance may be a capsule (e.g. a hard gelatin or soft gelatin capsule) containing a liquid to be delivered. See column 5, lines 20-25. The osmotic push layer, 10, is "at least partially" within the reservoir since the claim does not exclude the osmotic push

Application/Control Number: 10/608,305

Art Unit: 1616

layer from being completely enclosed within the reservoir. See column 2, line 60 to column 3, line 5.

Claims 1, 4, 10-13, 17, 23-24 under 35 U.S.C. 102(b) as being anticipated by Wong (5,312,390).



Wong discloses a osmotic device comprising a reservoir formed of wall (12) and (50) and housing a drug (16). Wong discloses wall (12) is made of an impermeable or an semipermeable membrane. See column 5, lines 55-60 and column 5, lines 55-60. Cap (5) is made of an impermeable or semipermeable material. See column 5, lines 45-46. Wong further discloses the delivery device is formulated by coating two portions of a hard gelatin capsule with an impermeable material and the other portion with semi-permeable material (this other portion is implicitly wall 14 since Wong discloses at least a portion of 14 has to be semipermeable). See column 10, lines 40-60. Note the gelatin layer reads on the "water permeable layer" of claim 4, i.e. forming the multilayer reservoir. The active is delivered as a liquid, solid, or semi-solid. See

Art Unit: 1616

column 6, lines 59-60. The reservoir further houses a osmotic expandable, push layer (20) and (30) wherein a semi-permeable membrane (46) covers a portion of the expandable, push layer (20). At least a portion of wall (14) must be semi-permeable. See column 5, lines 53-55. (28) is the exit orifice.

With regard to claim 11-13, the expandable, push layer is not completely encapsulated by wall (12) and (50) since portions of the surface are open by the screen (46). Thus, the semi-permeable membrane (46) forms over portion of the expandable, push layer that is not enclosed by the reservoir wall (12). Alternatively, both (20) and (30) which are expandable composition and are interpreted to make-up the instant expandable push layer and a portion, i.e. (30) is not enclosed by the reservoir (12) and (50) and a portion (20) is positioned in the opening of the reservoir.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Application/Control Number: 10/608,305 Page 6

Art Unit: 1616

Claims 8-9 and 21-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Wong (5,312,390) in further view of Dong (WO 0035419).

The teachings of Wong have been set forth above. Wong teaches impermeable materials for which the first housing 12 may be prepared from include, for example, polyethylene, polystyrene, ethylene-vinyl acetate copolymers, Hytrel.RTM. polyester elastomers (Du Pont) and other impermeable materials known to the art. see column 10, lines 50-55.

Wong does not teach the instant impermeable polymethacrylate latex material.

Dong teaches a controlled release system comprising liquid drugs. See abstract. Dong while teaching a barrier layer that is impermeable to fluids, teaches suitable materials include latex materials such as latex of acrylate esters EUDRAGIT, polyester elastomers (Du Pont); Hytrel, etc. See page 19, lines 22-25 and page 20, lines 14-26.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wong and Dong and utilize the instantly claimed impermeable material for wall (12). One would have been motivated to do so with a reasonable expectation of similar results since Wong teaches the use of any impermeable material known in the art and Dong teaches latex of acrylate esters are known materials that are impermeable to fluids. Furthermore, Dong teaches the same impermeable materials taught by Wong and thus establishes the functional equivalency between the instant latex material and the prior art's.

Claims 5-7, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong (5,312,390) in further view of Digenis (5,672,359).

Art Unit: 1616

The teachings of Wong have been set forth above. As discussed above, Wong teaches when forming the device, two portions of a hard gelatin capsule may be coated, one with an

impermeable material and the other with a semipermeable material.

Wong does not teach the instant hydrophilic polymer.

Digenis while teaches a hard capsule for controlled release, teaches the hard capsule made by made from hydrophilic materials such as gelatin or hydroxypropylmethyl cellulose. See column 1, lines 10-15.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Wong and Dong and utilize HPMC as the material form the capsule portion. One would have been motivated to do so with a reasonable expectation of similar results since Digenis teaches hard capsules may be made from hydrophilic materials such as instant HPMC or gelatin. Thus, a skilled artisan would have been motivated to substitute the prior art's gelatin material with the instant hydrophilic material with a reasonable expectation of success since Digenis establishes the functional equivalency of the prior art's hydrophilic material and the instant hydrophilic material, i.e. both are hydrophilic materials that are used to form hard capsules.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is 571-272-0614. The examiner can normally be reached on M-F (8:00-5:30), alternate Fridays off.

Application/Control Number: 10/608,305 Page 8

Art Unit: 1616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sharmila S. Gollamudi Examiner Art Unit 1616